

**REQUEST FOR PROPOSAL  
FOR  
PACKAGED AIR COOLED CHILLER UNIT  
AT THE BISMARCK VETERANS MEMORIAL PUBLIC LIBRARY  
FOR THE CITY OF BISMARCK**

BIDS RECEIVED BY 3:00 P.M.  
Thursday, [April 29, 2010](#)  
OFFICE OF THE CITY ADMINISTRATOR  
PO BOX 5503 (221 N 5TH ST)  
BISMARCK ND 58506-5503

BISMARCK VETERANS MEMORIAL PUBLIC LIBRARY  
PO BOX 5503  
BISMARCK ND 58506-5503  
(701)355-1480

## ADVERTISEMENT

The City of Bismarck is seeking cost proposals for the removal and replacement of one (1) existing packaged air cooled chiller unit for the Bismarck Veterans Memorial Public Library located at 515 North 5<sup>th</sup> Street, Bismarck, ND 58501. The contractor is responsible for providing one (1) new packaged air cooled chiller replacement unit including all freight, labor, materials, equipment, coordination of all work and supervision required for a complete turnkey installation for the City of Bismarck. This Project must be completed by [July 30, 2010](#). Bids will be received by the Board of City Commissioners of the City of Bismarck in the offices of the City [Administrator until three \(3:00\) o'clock p.m. on Thursday, April 29, 2010](#). Bids will be publicly opened and reviewed at [four \(4:00\) o'clock p.m. on Thursday, April 29, 2010](#).

The proposals must be mailed to the City Administrator (PO Box 5503, Bismarck ND 58506-5503) or otherwise deposited with the City Administrator (221 N 5th Street, Bismarck ND 58501) and shall be sealed and endorsed "Proposals for replacement packaged air cooled chiller unit for the Bismarck Veterans Memorial Public Library". If a bid is to be faxed, the bid must be sent to a bidder's agent independent of the City of Bismarck, placed in a sealed envelope, labeled according to this specification, and delivered to the office of the City Administrator prior to the bid deadline.

Bids must be submitted on blanks furnished by the City of Bismarck and in accordance with specifications and conditions issued by the City of Bismarck. Copies of proposal blanks and specifications and conditions may be obtained from the [Library Director at 701-355-1482, Bismarck Veterans Memorial Public Library, 515 North 5<sup>th</sup> Street, Bismarck, ND 58501-4081, or \[www.bismarck.org\]\(http://www.bismarck.org\)](#). All bidders are invited to be present at the opening of the proposals.

Each Bid must be accompanied by a separate envelope containing the contractor's license and a Bidder's Bond in a sum equal to five percent of the full amount of the Bid, executed by the Bidder as Principal and by a Surety Company authorized to do business in this State. All Bidders must be licensed for the highest amount of their Bids, as provided by NDCC Section 43-07-05. No bid will be read or considered which does not fully comply with the above provisions as to Bond and Licenses, and any deficient Bid submitted will be resealed and returned to the Bidder immediately.

All bidders are invited to attend a pre-bid project review meeting held at the Bismarck Veterans Memorial Public Library located at 515 North 5th Street, Bismarck, ND in the main office at 10:00 a.m. on [Monday April 19, 2010](#).

The right is reserved to hold all bids for a period of forty-five (45) days, to reject any and all bids, to waive technicalities or to accept such as may be determined to be for the best interest of the City of Bismarck.

***City of Bismarck***

W.C. Wocken  
City Administrator

ajj

## GENERAL SPECIFICATIONS

1. Bids may be accepted or rejected in the best interest of the City of Bismarck.
2. Proposals may be rejected if they show any alteration of form, additions not called for, conditional or alternate bids, incomplete bids, or irregularities of any kind or if they contain a clause in which the bidder reserves the right to accept or reject a contract awarded to him. Proposals in which the prices are obviously unbalanced or proposals otherwise regular which are not accompanied by a satisfactory proposal guarantee will be rejected.
3. Each Bid must be accompanied by a separate envelope containing the contractors license and a Bidder's Bond in a sum equal to five percent of the full amount of the Bid, executed by the Bidder as Principal and by a Surety Company authorized to do business in this State, conditioned that if the Principal's Bid be accepted and the Contract awarded to the Principal, the Principal, within ten (10) after notice of award, will execute and effect a Contract in accordance with the terms of the Principal's Bid and a Contractor's Bond as required by law and the regulations and determinations of the governing board. All Bidders must be licensed for the highest amount of their Bids, as provided by NDCC Section 43-07-05. No bid will be read or considered which does not fully comply with the above provisions as to Bond and Licenses, and any deficient Bid submitted will be resealed and returned to the Bidder immediately.
4. The right is reserved to cancel any and all awards under this letting for the failure to make delivery within forty five (45) days due to priorities or any other reason.
5. The total price is to be less federal excise tax for which exemption certificates will be furnished.
6. The successful bidder, when accepting the award, agrees that a complete inventory of repair parts will be maintained in stock for immediate delivery when needed.
7. The bidder shall submit Detailed Manufacturer's Specifications along with this proposal. Upon acceptance, same shall become a part of these originally contained herein, in so far as they do not conflict with these specifications.
8. The purpose of this specification is to allow the Owner (City of Bismarck) to compare costs and to assist the owner's decision prior to award of contract.
9. Within ten (10) days after award of construction contracts, submit to the owner's representative a complete list showing for each item in the equipment/material schedule the name of the manufacturer of the product that he proposes to use in the project.
10. In the event of a conflict between General Specifications and the Detailed Specifications, the latter will govern.
11. Where it is not readily determinable to the Board of City Commissioners as to the accessories included or not included, the bidder shall attach to the proposal a complete statement listing this information.
12. Purchases by the City of Bismarck are not subject to the North Dakota State Sales Tax.
13. Bids shall be on the bid forms furnished in the specifications packet.
14. Liquidated Damages. Owner and Contractor recognize that time is of the essence of this Agreement and that the Owner will suffer inconvenience and financial loss if the delivery date is not met. The parties recognize the difficulties of estimating or proving the financial loss and/or inconvenience of the Owner by the failure to meet the delivery date. Both the Owner and Contractor agree that the Owner has made a reasonable estimate of financial loss and inconvenience caused by a delay in the delivery of the equipment and that the stated damages are reasonable in amount and reasonably related to the actual damages that would be suffered by the Owner as a result of delayed delivery. Accordingly, instead of requiring any actual proof of damages, Owner and Contractor agree to the sum of \$100 per each day of non-delivery beyond

the delivery deadline as reasonable liquidated damages (and not as a penalty) and also agree that the recitals in this paragraph are conclusive presumptions pursuant to NDCC Section 31-11-02.

15. The City reserves the right to waive all technicalities or deviations from specifications, if deemed not material, in the City's sole discretion. (Price shall not be the sole determining factor. The City may consider other factors such as ease of use, durability, effectiveness, reliability, delivery, or other costs or factors, such as dealer/manufacturer support, availability of repair parts, or other relevant information concerning the operation of the unit or product.)
16. It is the policy of the City of Bismarck to comply with all laws, rules, regulations and orders with respect to local preference, non-discrimination, wages and hours and all other applicable laws, rules, regulations and orders. All suppliers, contractors, and service providers doing business with the City of Bismarck must certify that they are in compliance with all federal, state and local laws, regulations and orders including but not limited to those regarding non-discrimination, wages and hours, workers compensation and immigration. Failure of compliance may result in the cancellation of any City of Bismarck contract and exclusion from consideration for future contracts.
16. The Contractor shall also obtain and furnish general liability insurance covering itself; and naming the City as an additional insured with an insurer licensed to do business in North Dakota; with policy limits of not less than \$1,000,000 for property damage; and not less than \$1,000,000 for bodily injury for one person; and not less than \$1,000,000 for one accident, against and from all suits, actions, or claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person or persons or property on account of any negligent act or fault of the Contractor or the City or its officers, agents or employees in the execution of the work, and as will protect the City from any contingent liability or any other liability under this project and based on any other legal grounds. The Contractor shall agree to indemnify and hold harmless the City for all of the Contractor's acts, including negligent acts or wrongful conduct. The Contractor shall also carry an insurance policy of builder's risk of at least double the project amount that shall name the City as additional insured.

The successful bidder shall also obtain Workforce Safety insurance coverage as required by statute. Prior to entering into an agreement with the City, the successful bidder shall provide an insurance certificate showing the above coverages and showing the City as an additional insured. The successful bidder may obtain such additional coverages as it deems necessary.

The successful must provide performance and payment bonds for the full amount of the contract in favor of the City of Bismarck and Burleigh County.

### **NOTICE**

A prospective supplier may offer alternate specifications to the City which the supplier feels are an equal alternate to the specifications required. Proposed alternatives must be made available for demonstration and use by the City of Bismarck for a minimum of sixteen (16) hours of operation to determine suitability and acceptability. If the alternate is unacceptable to the City, the prospective supplier may request, in writing, that the matter be scheduled for review by the City Commission. Such request must be made by 10 a.m. [Thursday, April 22, 2010](#), to Library Director Tom Jones, Bismarck Veterans Memorial Public Library. Requests for review by the City Commission after that date shall not be honored.

**SPECIFICATIONS FOR CHILLER REPLACEMENT PROJECT AT THE  
VETERANS MEMORIAL PUBLIC LIBRARY  
FOR THE CITY OF BISMARCK**

**PROJECT PURPOSE**

This project is for the removal and replacement of one (1) existing packaged air cooled chiller unit for the Bismarck Veterans Memorial Public Library located at 515 North Fifth Street, Bismarck, ND 58501. The existing Mc Quay 140 Ton packaged air cooled chiller unit model number; ALR-145C is to be replaced with a new more efficient unit. This equipment has exceeded its practical lifecycle. The City of Bismarck, hereinafter “Owner”, is requesting a total project cost for a turnkey installation for a 120 Ton Packaged Chiller unit in the base bid. An Alternate #1 bid is for a turnkey installation for a 140 Ton Packaged Chiller unit in lieu of the 120 Ton unit requested in the base bid.

**PROJECT SUMMARY**

This packaged air cooled chiller unit replacement project includes the removal of the existing unit. The placement of the new unit shall be installed and supported on the six (6) existing concrete piers. The vibration isolators shall be sized for the new chiller and installed on the existing concrete piers. The existing vibration isolators can be reused if they meet the new equipment manufacturers’ requirements. This project includes the removal and replacement of the existing Mc Quay reciprocating packaged chiller unit with a new packaged chiller unit. The contractor is responsible for providing all required new equipment and related parts, including all freight, labor, equipment, materials and supplies, coordination of all work, construction management, and supervision required for a complete turn key installation for the Owner. This includes all purchasing, delivery, and installation of new packaged chiller unit and related parts, equipment, tools, and materials, removal and disposal of the old unit, project management and coordination, general, electrical and mechanical construction.

This project must be completed by July 30, 2010.

**GENERAL PROVISIONS**

**Scope of Work**

1. The work consists of providing the new packaged chiller unit and related parts, labor, materials, lifts, tools, equipment, and supervision required for the removal, replacement and disposal of the existing equipment, and the installation of one (1) new packaged air cooled chiller unit.
2. Contractor shall remove the existing packaged chiller unit and transport it to appropriate disposal off site. The existing equipment shall have the electrical and water piping disconnected, refrigerant, and glycol properly evacuated, properly prior to removal of this equipment.
3. One prime contractor, referred to as the “contractor”, shall be responsible for all work for this project. All subcontractors are the sole responsibility of the contractor. It is anticipated that only the mechanical portion of this contract will exceed \$25,000.

4. The contractor is responsible for the performance and overseeing of all work required as outlined within the contract documents. This includes, but is not limited to mechanical construction, electrical construction, general construction, and all other work required for this project.
5. Submittal of a bid shall indicate the contractor has examined the specifications, has contacted the owner, and has reviewed the site, project location, and existing conditions of all work to be performed. No allowances will be made for the contractor's failure to visit the job site or review of the specifications.
6. The contractor shall notify the Owner's representative of any apparent discrepancies or omissions from the contract documents including the specifications for clarification before bids are submitted. Neither the Owner nor Owner's representative will be responsible for any oral instructions or modifications of the specifications prior to opening of bids. Written interpretation or clarification will be made by addenda. Discrepancies or field problems discovered during construction shall be immediately called to the attention of the owner's representative for decision.

**Project Execution:**

1. Owner shall not be responsible for the means, method, techniques, sequences, or procedures of construction selected by the contractor.

**Coordination:**

1. Contractor shall coordinate all work with the Owner. The project is required to be completed by [July 30, 2010](#). Time is of the essence.
2. The contractor shall coordinate the removal of this equipment with the City Traffic Engineer for unloading of this equipment onto public street as required. Contractor shall be responsible for all permits and compliance with life and public safety and codes that apply.

**Codes:**

1. The Contractor shall obtain all permits and licenses required for the execution of his contract, including building permits and inspection fee's that are required. The entire installation shall be in accordance with federal, state and local codes, laws, and ordinances that apply.
2. Meeting the minimum standards of the above codes does not permit a lower grade of construction where the contract documents, OEM plans and specifications call for workmanship or materials in excess of code requirements.

**Detailed Specifications:**

1. Work under these specifications consists of furnishing, installing, and providing all labor, equipment, materials, OEM parts, and supervision for a complete turnkey installation. The intent is to use original OEM parts for this compressor replacement project to insure performance, operation, efficiency, maintenance, and warranty of the Trane Chiller Compressors.
2. All mechanical work is to be performed by a licensed mechanical contractor, all electrical work is to be performed by a licensed electrician, and general construction is to be performed by a contractor licensed to perform this work.

3. The contractor shall be responsible to insure that the chiller operation, performance and efficiencies are met for this project. The contractor shall confirm with the Trane supplier that all OEM parts and materials are included to complete this project.
4. All bidders are encouraged to attend the pre-bidders meeting at the Library located at 515 North Fifth Street, Bismarck, ND in the main office at **10:00 a.m. on Monday, April 19, 2010.**

### **DETAILED SPECIFICATIONS**

1. The work under these specifications consists of furnishing, installation, and providing all labor, package chiller unit and related equipment, materials, OEM parts, and supervision for a complete turnkey installation.
2. The contractor will be responsible for performing all work under this project. The contractor may retain subcontractors as necessary to complete the work in compliance with the specifications. The contractor is responsible for providing, furnishing and installing the new package chiller unit and tie into the existing cooling system for the Library.
3. The Contractor shall provide three (3) copies of the operation, trouble shooting, and parts manuals for the Chiller unit for the Library.
4. Chilled water piping shall be (victrolc) or equal and fabricated from field measurements.
5. Refrigeration piping shall be fabricated from field measurements.
6. Refrigeration piping shall be **insulated** for all new work to match existing.
7. All piping shall be **insulated**. All new work such as installation of the chilled water piping for return and supply, valves, fittings, and piping changes will be insulated for this project. Heat trace will be installed and metal jacketed to match existing.

### **EQUIPMENT AND WORK**

Air Cooled Packaged Chiller Unit(s) provided and installed by the contractor:

1. New Air Cooled Packaged Chiller unit shall be Trane CGAM120 air cooled chiller approved or equal for the base bid.
2. New Air Cooled Packaged Chiller unit shall be Trane RTAC140 air cooled chiller approved or equal for the Alternate #1 bid.
3. As soon as possible after receipt of the Owner's approval of the equipment/material schedule, submit to the Owner a complete catalog data and/or shop drawing for each item listed above. Catalog data shall include catalog numbers, trade names, performance data and descriptive information. Shop drawings shall be stamped or initialed by the contractor to indicate he has thoroughly reviewed them for conformance to the plans and specifications and submitted to the Owner in six (6) or more sets for his review.

Submit data shall be sent to:

City of Bismarck  
Director of Maintenance Services  
PO Box 5503  
Bismarck, ND 58506-5503

The contractor is responsible to coordinate all the work with subcontractors on the project.

4. Chiller manufacturer shall have a certified service provider that is within a 50 mile radius of the site.
5. It is the sole responsibility of the contractor to initiate, maintain, and supervise all safety precautions and programs in connection with the work.
6. Submit with the RFP, a complete list showing for each item in the equipment/material schedule the name of the manufacturer of the product that he proposes to use in the project.
7. The contractor will provide written and oral training on operating and maintenance instructions to the owner's representatives. The instructions must be given to the owner within two (2) weeks after final acceptance of the project by the Owner.
8. The contractor shall be responsible for obtaining all permits and licenses required for the execution of this contract, including any natural gas or electrical utility fees, water, sewer, city utility tapping, water meter fees.
9. The contractor will be responsible for cleaning up after any project work, including the removal of all scrap material left on the job by the contractors or subcontractors. At the end of the project the contractor is responsible to insure that the job site is cleaned up entirely and left in the same or better condition than before the start of the project.
10. Any material or equipment removed by the project that the owner does not want to retain shall be removed and disposed of by the contractor.
11. All electrical and control equipment to be removed, reused or relocated shall be inspected and checked for proper operation prior to removal or demolition.
12. All mechanical equipment and piping to be removed, reused, and or relocated shall be inspected and fluids removed prior to removal or demolition.
13. Material and equipment removed and to be reused shall be cleaned before installation.
14. Openings and holes cut to allow passage of conduit and/or piping through walls, floors or roof system shall be patched by the contractor unless noted otherwise. This applies to rated and non rated floors.
15. Openings and pipe penetrations through fire rated walls and floors shall be sealed with a UL classified fire stop system. Fire stops shall be provided in accordance with the appropriate system number as it relates to pipe size/material and wall or floor rating/material.

## **TESTING**

16. The contractor shall provide specialized chiller testing. The contractor shall provide all equipment, tools, materials, labor, engineering and test equipment to provide required testing of the chiller per equipment manufacturer recommendations and specifications to adjust and for optimal operations as herein specified. The contractor shall certify the chiller operation meets the design and engineering specifications per the manufacturer's requirements. All personnel involved in the execution of the testing work shall be experienced in testing of the chiller OEM equipment.
17. Testing shall not begin until the packaged chiller unit is in full working order. The contractor shall put the chiller and chilled water system into full operation and shall continue the operation during each working day of testing. Correct operation of equipment and system components and cleanliness of piping shall be the responsibility of the contractor.
18. Costs for testing as required per the OEM for the chiller and related equipment are to be included within this project.
19. The work includes furnishing of all labor, equipment, materials, for a complete plumbing system, consisting of but not limited to chilled water and refrigeration piping, high and low pressure



- piping, isolation and service valves, control valves, and related fittings and pipe insulation. Shop drawings shall be submitted for the equipment in this section to the Owner.
20. The contractor shall connect to the existing piping system and install the piping and make connections to the new equipment as indicated in the contract documents and field verified prior to installation.
  21. At the completion of all piping work, but before said piping is enclosed, the piping system shall be tested under the supervision of the Owner or authorized representative with a 50 pound air test for at least six (6) hours without a pressure drop.
  22. The actual piping path and accessories will be field verified with the Owner by the contractor prior to bidding of this project.

## **ELECTRICAL SECTION**

23. The contractor shall furnish all wire, conduits, special controls, and electrical devices as specified herein for proper operation of the equipment and controls furnished.
24. The contractor shall provide, furnish, and install all including but, not limited to all wire, conduit, junction boxes, service disconnect, power supplies, starters, heaters, switches, sensors, etc., and perform all power and control wiring as required for the new chiller. This includes the main power for the single point 460/60/3 power supply, 115/60/1 to supply power for the evaporative heaters and a 24 volt control signal (start/stop).
25. All electrical work shall be performed by a licensed electrician.
26. Contractor shall disconnect electrical service, wiring, etc for the existing chiller to prepare for the chiller unit for removal.
27. The existing chilled water piping is insulated and heat trace is connected to prevent freeze up. contractor to disconnect and reconnect heat trace with new and extended piping for the new chiller.
28. Contractor shall verify field measurements, existing conditions, and circuiting arrangements prior to bidding and performing the work.
29. Contractor shall provide and install including but, not limited to all wire, conduit, junction boxes, service disconnect, power supplies, etc. as required for the new chiller. This includes the main power for the single point 460/60/3 power supply, 115/60/1 to supply power for the evaporative heaters and a 24 volt control signal (start/stop).
30. Contractor shall connect all electrical for the new chiller per the OEM requirements. Contractor shall verify proper phasing prior to start up.
31. Contractor shall disconnect and reconnect all electrical work as required.
32. All work shall meet ANSI/ NFPA 70-National Electrical Code, NFPA 70B Electrical Equipment Maintenance, OSHA, NEC/ building codes, all codes, ordinances, laws, and regulations that apply.
33. The contractor shall verify the existing chiller and conditions with the, OEM manufacturer and Owner prior to performing this work. All electrical shall be disconnected to allow equipment to be lifted and removed.
34. Contractor shall disconnect electrical systems in walls, floors, ceilings, and roofs for removal as required. Review with the Owner prior to removal.
35. Contractor will provide temporary wiring and connections to maintain existing system in service during construction. Contractor will make temporary connections to maintain service in areas adjacent to and in the work area.

36. Supply, extend, and reconnect 460 volt/3 phase/ 60 Hz electrical service to the control panel for the new packaged chiller.
37. Upgrade and extend the 120 volt single phase 60 hz electrical service to the evaporator heaters and heat tape for the cooling loop.
38. Lock out/tag out, MSD sheets, housekeeping, and other safety procedures are the responsibility of contractor.
39. Maintain existing fire alarm system in service. Disabling of the system will be allowed only to make switchovers or connections. Notify Owner 24 hours in advance of partially or fully disabling the fire alarm system. Work with Owner's building maintenance personnel directly to keep disruptions and outages to a minimum.
40. Remove, relocate, and extend existing installations to accommodate new construction.
41. Remove conduits and wiring related to electrical devices, equipment, and related items which are not to be reused.
42. Temporarily remove conduits and wiring related to electrical devices, equipment, and related items which are to be removed and reused.
43. Remove abandoned wiring from the source of supply and conduit.
44. Disconnect abandoned wiring and remove devices if the conduit is to remain or be reused.
45. Disconnect and remove all abandoned electrical devices, disconnects, distribution equipment, electrical equipment not being reused or no longer in service.
46. Repair adjacent construction and finishes damaged during demolition and extension work.
47. Maintain access to existing electrical installations which remain active. Modify installation or provide access panel as deemed appropriate. Verify with owner.
48. Install junction boxes as required to continue circuiting and/or extend existing installations.
49. Panel boards - Clean exposed surfaces and insure electrical connections are secure and tight.
50. Install products in accordance with the manufacturer's instructions.
51. Provide anchors, fasteners, and supports per NECA standards of installation.
52. Install disconnect switches, controllers, control stations, and control devices as required.
53. Install products plumb and level.
54. All wiring shall be solid wire copper conductor and properly grounded per NEC.
55. Complete labeling of all electrical equipment, circuits, and panel directories by contractor.

## **AIR-COOLED WATER CHILLERS**

### **ACCEPTABLE PRODUCTS**

- A. Trane Model CGAM 120 or approved equal for base bid
- B. Trane Model RTAC 140 or approved equal for Alternate #1.

### **GUARANTEE:**

1. The contractor shall guarantee all equipment, materials, workmanship, and the proper operation and final successful test runs of all equipment installed for a period of one (1) year labor, two (2) years on equipment after the successful 24 hour final test has been completed.
2. The contractor shall guarantee all materials, equipment, and workmanship for a period of one year after the final punch list items have been completed and the project has been closed. The guarantee and warranty requirements shall extend to the correction, without cost to the owner, of all equipment, material, and workmanship found to be defective or non- conforming to the any applicable code or the Specifications during that one year period.
3. The guarantee shall include trips to the project site by the contractor as required to make the corrections or adjustments to insure equipment operation as intended and meet the intent and scope of the project.
4. The specified guarantee shall not relieve the contractor from liability arising from improper installation or non-compliance with applicable codes.

## PROPOSAL

Bidder \_\_\_\_\_ 2010

To The Honorable Board of City Commissioners  
Bismarck, North Dakota

We the undersigned agree to remove, furnish and install one (1) Trane chiller model CGAM 120 or approved alternate, or as an Alternate #1, Trane chiller Model RTAC 140 or approved alternate, including all materials, labor, equipment, and supervision for a turn key installation conforming to the Specifications and the Original Equipment Manufacturer requirements as provided by the City of Bismarck. This is the contractor's total bid for a complete turnkey project for the base bid and Alternate #1. This work includes, but is not limited to general, mechanical and electrical construction.

**Total Base Bid Amount** \$ \_\_\_\_\_

**Total Bid, Alternate #1** \$ \_\_\_\_\_

SIGNATURE \_\_\_\_\_

COMPANY \_\_\_\_\_

MAILING ADDRESS \_\_\_\_\_

\_\_\_\_\_

PHONE NUMBER \_\_\_\_\_